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June 6, 2016

Via Certified Mail – Return Receipt Requested Gina McCarthy Administrator Environmental Protection Agency 1200 Pennsylvania Avenue, N.W. Washington, DC 20460	*Via Certified Mail – Return Receipt Requested* Matt Rodriquez Secretary Cal. Environmental Protection Agency P.O. Box 2815 Sacramento, CA 95812
Via Certified Mail – Return Receipt Requested Barbara A. Lee Director Cal. Department of Toxic Substances Control P.O. Box 806 Sacramento, CA 95812	*Via Certified Mail – Return Receipt Requested* Thomas Howard Executive Director State Water Resources Control Board P.O. Box 100 Sacramento, California 95812
Via Certified Mail – Return Receipt Requested Alexis Strauss Acting Region 9 Administrator Environmental Protection Agency 75 Hawthorne Street San Francisco, CA 94105	*Via Certified Mail – Return Receipt Requested* Bruce H. Wolfe Executive Officer Regional Water Quality Control Board San Francisco Bay Region 1515 Clay Street, Suite 1400 Oakland, CA 94612
Via Certified Mail – Return Receipt Requested Linda Y.H. Cheng Agent for Service of Process Pacific Gas & Electric Company 77 Beale Street, 32nd Floor San Francisco, CA 94105	*Via Certified Mail – Return Receipt Requested* Scott Mroz Sedgwick LLP 333 Bush St., 30th Fl. San Francisco, CA 94104

Re: Notice of Intent to Sue under the Resource Conservation and Recovery Act and Clean Water Act[1]

To Whom It May Concern:

This letter constitutes the NOTICE OF INTENT TO SUE Pacific Gas & Electric Company and PG&E Corporation (collectively and inclusive of its predecessors, "PG&E") of

[1] If you are represented by counsel in this matter, request is specifically made that this communication be directed to such counsel, and this communication shall be deemed to have been made directly to such counsel.

Dalene Bramer and Joe Gabany ("Noticers") for violations of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6972 *et seq.* and the Clean Water Act ("CWA"), 33 U.S.C. §§ 1251, *et seq.* arising out of PG&E's operation of manufactured gas plants ("MGPs") in the present day Marina neighborhood of San Francisco, CA and PG&E's handling, storage, treatment, transportation, and disposal of the wastes generated thereby ("MGP Waste"). Specifically, this letter gives notice of Noticers' intent to seek redress for the contamination by MGP Waste of soil and groundwater on and in the vicinity of the Noticers' property located at 1645 North Point St., San Francisco, CA 94123, Lot 026 of Block 0460A (the "Property"), which has, *inter alia,* resulted in a significant diminution in the value of the Property and which may present an imminent and substantial endangerment to human health and the environment.

I. Persons Giving Notice

Dalene Bramer and her husband Joe Gabany are the owners of the Property. Their address is 1645 North Point St., San Francisco, CA 94123. Their phone number is (415) 515-2321. They can be contacted through the undersigned counsel at the addresses and phone number above.

II. Person Responsible for the Alleged Violations:

PG&E, as the owner and operator of MGPs formerly located in the Marina neighborhood of San Francisco, CA, is responsible for the violations that give rise to this Notice.

III. Location of the Violations

PG&E's violations have occurred and continue to occur at and around the following former locations of PG&E owned and operated MGPs.

1. North Beach MGP Site: The North Beach MGP Site is comprised of at least four city blocks bounded by Marina Boulevard, Buchanan Street, North Point Street, Laguna Street, Bay Street, and Webster Street, designated by the City and County of San Francisco Office of the Assessor-Recorder as Blocks 0459, 0460A, 0445A, and 0463B. The site also includes a triangular area of vacant land and paved parking (Marina Green) situated northeast of Marina Boulevard. PG&E operated the North Beach MGP near the area north of Bay and Buchanan Streets until at least April 1906, when it was destroyed in the Great Earthquake. The Property is located within the footprint of the North Beach MGP Site.

2. Fillmore MGP Site: The Fillmore MGP Site is comprised of at least four city blocks bounded by Fillmore Street, Cervantes Street, Mallorca Way, Pierce Street and Toledo Way, designated by the City and County of San Francisco Office of the Assessor-Recorder as Blocks 0462A, 0463A, 0466A, and 0467A. PG&E owned and operated the Fillmore MGP operated near the area west of Fillmore and Bay Streets until at least April 1906, when it was destroyed in the Great Earthquake. The Marina Middle School is located on part of this site.

These sites are collectively referred to herein as "MGP Sites" and each of these sites are inclusive of the groundwater located therein or flowing there through.

IV. Dates of the Violations

The violations that are the subject of this notice began some time prior to the year 1905 and are ongoing.

V. Description of PG&E's RCRA Violations

Pursuant to 42 U.S.C. § 6972 of the RCRA, Noticers intend to sue PG&E for handling, storing, treating, transporting, and disposing solid waste, in the form of MGP Waste, in a manner that may present an imminent and substantial endangerment to health or the environment. 42 U.SC. § 6972(a)(1)(B). Liability under RCRA is retroactive, and the ongoing contamination resulting from PG&E's handling, storage, treatment, transportation, and disposal of MGP Waste and the ongoing discharges therefrom into soil, groundwater, and air are illegal and subject to liability under the RCRA. 42 U.S.C. § 6972(a)(1)(l); *Gwaltney of Smithfied, Ltd. v. Chesapeake Bay Fnd., Inc.*, 484 U.S. 49 (1987).

PG&E's disposal of MGP Waste at the MGP Sites, including onto the Property, constitutes disposal of solid waste under the RCRA. "Disposal" under the RCRA is defined to include the "discharge, deposit, injection, dumping, spilling, leaking or placing of any solid waste . . . into or on any land." 42 U.S.C. § 6903(3). MGP Waste qualifies as a "solid waste," defined by the RCRA as a "discarded material . . . resulting from industrial, commercial, mining and agricultural operations." 42 U.S.C. § 6903(27). PG&E's handling, storage, treatment, and transportation of MGP Waste at the MGP Sites further constitutes handling, storage, treatment, and transportation of solid waste under RCRA.

A. The Property Is Heavily Contaminated with MGP Waste

The Property is comprised of a 3,781 square foot lot, within the North Beach MGP footprint, at roughly the former location of a facility identified on historical maps as the "Scrubber." In September and November of 2015, an environmental investigation was conducted by Haley & Aldrich ("H&A") at the Property. During the investigation, samples were collected from shallow soil at depths of up to ten feet below the ground surface ("bgs"), at locations under the slab foundation of the Property and in the backyard. MGP Waste was identified via multiple lines of evidence throughout the soil of the Property during the investigation, and dangerously high levels of lead, along with arsenic, and polycyclic aromatic hydrocarbons ("PAHs") were consistently encountered.

1. The Property Is Contaminated with Hazardous Levels of Lead

PG&E initially refused to test for lead—claiming that any lead on the Property would be from historical uses of lead paint or fill—and there were significant delays. However, when testing was finally conducted on the Property, the lead levels detected on the Property were extraordinarily and dangerously high.

The risk screening level ("RSL") for lead of the California Department of Toxic Substance Control ("DTSC"), as well as the environmental screening level ("ESL") for lead of the California Regional Water Quality Control Boards ("RWQCB"), is 80 mg/kg. In California, the threshold for characterizing lead contamination as a hazardous waste, depending on the results of a leachate analysis, is as low as just 100 mg/Kg, while a level of 1000 mg/Kg almost certainly qualifies as such.

As Exhibit A, attached hereto, shows, the results of testing on the Property greatly exceeded these standards. The lead levels from the samples from the Property that were tested, were not only many times higher than the levels deemed safe by California regulators, they were all well above the level unsafe for young children to have contact with and several samples were well over the level qualifying as "a California hazardous waste."[2] Not only were forty-one of the samples higher than the 80mg/Kg screening level, several samples had ***lead levels well over 1000 mg/Kg***, and one sample had ***a lead level of 4460 mg/Kg***. These dangerous lead levels were encountered at all depths, including near the surface and as low as 10' bgs.

2. The Property Has Very High Levels of PAH Contamination

The sampling from the Property also indicated very high levels of PAH contamination.

For example, the benzo(a)pyrene equivalent ("B(a)P-EQ") levels from soils taken from a location near the entry to Mr. Gabany's garage office were as high as 669 mg/Kg. In comparison, the United States Environmental Protection Agency ("USEPA") B(a)P-EQ risk-based screening level is .016 mg/Kg. In other words the PAH levels from this location were almost **42,000 times** the USEPA risk-based screening level. Furthermore, at this location, not only were extremely high levels of PAH contamination found near the surface and continuing down to four feet, the boring logs indicate that the soil was "moist" (despite the samples being taken far above the water table and during a drought) and that a naphthalene odor was present. Consistent with the latter observation, soil vapor testing from the location showed high levels of naphthalene.

Other locations had similarly elevated B(a)P EQ levels. These include, without limitation:

- 353 mg/Kg, ~**22,000 times** the USEPA screening level, at a location in the middle of the backyard near the home;
- 682 mg/Kg, ~**42,600 times** the USEPA screening level, at a location on the Western edge of the backyard near its midway point;
- 286 mg/Kg, ~**18,000 times** the USEPA screening level, at a location in the middle of the backyard near its far end;
- 900 mg/Kg, ~**56,300 times** the USEPA screening level, at a location on the Western edge of the backyard near its far end;
- 234 mg/Kg, ~**14,600 times** the USEPA screening level, at a location near the middle of the garage;
- 191 mg/Kg, ~**12,000 times** the USEPA screening level, at HA12, located near the entrance of Joe's office to the garage.

[2] The testing also identified very high levels of arsenic.

- 93 mg/Kg, ~**6,000 times** the USEPA screening level, at a location near the entrance of Mr. Gabany's office in the garage.

3. Several Factors Confirm the Lead and PAHs Are from MGP Waste

PG&E has conceded that PAH contamination on the North Beach Site is from MGP Waste, and there is no credible alternative source for the extremely high levels of PAHs found on the Property.

PG&E has denied that lead is a constituent of MGP Waste found on the MGP Sites, claiming, instead, that the lead is from lead paint or fill, and, more recently, resulted from aerial deposition from a lead smelter that operated for a short period approximately .5 to 1 mile downwind of the MGP Sites. Several factors refute this denial and strongly support the conclusion that the extraordinarily high levels of lead found on the Property and throughout the MGP Sites is from MGP Waste.

As an initial matter, lead is a well-established constituent of wastes found at former MGP sites. The source of lead at MGP sites is twofold. First, lead, along with arsenic, was often a trace element in feedstocks. Second, lead based materials were extensively used throughout MGPs for various purpose. "[L]ead was used in paint, as caulking for gas holders, in pipework, for roofing, in batteries, and as lead arsenate insecticide." *Environmental Resources Limited, Problems Arising from the Redevelopment of Gas Works and Similar Sites, November 1987* ("*Environmental Resources*"). Moreover, "the common pit-putty [used for maintenance of MGPs] was an equal-parts (by weight) mixture of red lead, white lead, and litharge." *Hatheway, Allen W., Remediation of Former Manufactured Gas Plants and Other Coal-Tar Sites*, 2012 ("*Hatheway*"). Litharge is lead oxide; and mortars used in MGP facilities also likely contained substantial portions of the substance. According to a technical publication from 1930's,"Litharge-glycerine mixtures have long been used for cements, for they form a workable, quick-setting mortar which sets with slight expansion into a hard, strong, chemically resistant material." *McKinnon, Bain L., "Properties Of Litharge And Glycerine Mortars," May 10, 1933.*

Lead contamination on MGP sites resulting from trace elements of feedstocks is often associated with wastes from "purifier boxes." *Environmental Resources.*

Lead contamination on MGP sites resulting from its use as a building and maintenance material is generally found throughout MGP sites. This is the result of common MGP decommissioning, demolition, and maintenance practices. According to a utility industry publication, "[m]uch general debris from site clearance is found at" former MGP sites where "material may simply have been spread over the whole site." *Environmental Resources.* Indeed, according to the authoritative treatise on MGP sites, "it was industry gasworks demolition practice, through the 1960s, to remove all aboveground structures and piping and to carry the demolition to about 30 cm below existing ground" where "[a]t this final demolition grade, piping was severed, leaving the subsurface remainder in place." *Hatheway.* Furthermore, during the course of an MGP's operation, brick retort benches were routinely replaced, with the debris therefrom generally disposed of on site.

Consistent with the foregoing, on the Property, high levels of lead were consistently found not only co-located with high levels PAH contamination and traditional MGP residue such as "clinker" or "asphalt-like material," but also co-located with brick and mortar debris. "Clinker" is essentially carbonized coal, was a ubiquitous waste product of MGPs, and is a classic constituent of MGP soil contamination. *Integrys, Multi-Site Conceptual Site Model Former Manufactured Gas Plant Sites* (2007). MGPs were traditionally built of brick and mortar, *id.*, and brick was the predominant building material of MGP structures at the North Beach MGP, while, on the other hand, very few other buildings in the area were built with brick. Furthermore, as mentioned, PG&E has conceded that PAH contamination found on the MGP Sites is the result of MGP Waste. Thus, the co-location of lead with these other substances strongly supports the conclusion that the extraordinarily high lead levels on the Property is the result of contamination from MGP Waste and is not attributable to any other source.

This conclusion is also strongly supported by a statistical study, attached hereto as Exhibit B, of lead levels inside and outside the footprint of the MGP Sites. The study shows a statistical100% chance that the concentration of lead in the dataset of samples in the terrestrial portion of the North Beach Site and Fillmore Site properties is different from the rest of the samples. The mean of the samples on the properties within the MGP Sites is roughly 390 mg/Kg, and the mean outside of the MGP Sites is 79 mg/Kg. The "P-Value" on the Two-Sample T-Test and CI means there is a 0% chance that the means of the two datasets are the same.

This wholly refutes PG&E's alternative explanations for lead encountered on the Property and elsewhere in the MGP Sites. If, as PG&E claims, the lead was from generalized historical sources—such as historical use of lead paint, historical fill, or aerial deposition from a smelter .5 to 1 mile *downwind*—lead levels should not be statistically different inside versus outside the footprint of the MGP Sites. Conversely, the fact that they are statistically much higher inside the footprint of the MGP Sites strongly supports the conclusion that they are the result of MGP Waste in those footprints.

In addition to this statistical study, several other facts belie PG&E's alternative explanations for lead found on the Property.

First, there is no evidence of imported fill ever having been placed on the Property, and, indeed, it is illogical to suggest otherwise: The Property is well *inside* the historical shoreline; and, during the period of major fill activities in the Marina neighborhood in the early 20th century, the North Beach MGP was in operation, including in the area that now is the Property, where a large structure referred to as a "scrubber" was located. It is nonsensical to suggest that fill was placed on land that was in use at the time for the production and/or storage and distribution of manufactured gas. Accordingly, imported fill cannot be the source of the lead found on the Property.

Second, the depths at which lead was found on the Property are impossible to harmonize with either historical lead paint or aerial deposition as causes of it. In either case, the lead would be located only near the surface of the property—as lead does not migrate vertically in soils.

However, very high levels of lead were found at all depths, including as low as 10' bgs. Furthermore, because, again, there is no evidence of imported fill on the Property, it is not possible to explain such depths as being the result of aerial deposition of lead on the surface that was subsequently covered.

Finally, there is no evidence supporting PG&E's claim that the referenced smelter was a significant source of aerial lead deposition during the smelter's operation. Indeed, its location, approximately uphill of the current location of Ghirardelli Square on Bay St., .5 to 1 mile East of the MGP Sites, makes the smelter a highly unlikely source of significant aerial deposition of lead at the sites, given prevailing Northwest winds in the area.

4. MGP Waste Disposed by PG&E on the Property and/or at Other MGP Sites Has Migrated into Groundwater that Is Hydrologically Connected to the San Francisco Bay and Has Been Transported into the San Francisco Bay

Testing at the MGP Sites indicate that groundwater had been contaminated as a result of MGP Waste in the soil. The groundwater below the MGP Sites is hydrologically connected to the San Francisco Bay; thus, contamination in such groundwater flows into the Bay contaminating it. The MGP waste is carried to the San Francisco Bay via several conduits, including by way of direct disposal into the San Francisco Bay waters, through groundwater, and through a network of combined transportation and storage ("T/S") boxes.[3]

By way of example, a PG&E owned 0.25 acre parcel within the 9.5 acre North Beach MGP Site, which PG&E currently uses as a substation ("Marina Substation"), was tested for MGP Waste in 1991. Soil and groundwater tests indicated that residues associated with the former MGP are present in on-site soils, especially saturated soils, and in groundwater underlying the site. The maximum total PAHs were 96.9 PPM in the unsaturated soil, 1,160 PPM in the saturated soil, and 3.51 mg/l in groundwater. Recommendations were made for investigation of the larger North Beach MGP Site because the source of PAHs in the groundwater and saturated soil was not believed to be *solely* from the smaller Marina Substation parcel.

Additionally, a privately owned 0.3 acre parcel within the 9.5 acre North Beach MGP Site which previously functioned as headquarters of MGP operations ("Gaslight Building") was tested for MGP Waste in 1997. Results of soil sampling indicated the presence of significant

[3] In the 1970s, the City and County of San Francisco constructed a combined sewer and stormwater collection system, which was intended to transport all contents to wastewater treatment plants. As part of this project, a network of combined T/S boxes were constructed that, with gaps in which tunnels exist, run roughly along the perimeter of San Francisco's Bay, beginning at roughly the Western end of West Harbor, Northwest of Marina Green, and continuing East before wrapping South and terminating at the water treatment plant in the Dogpatch area. The T/S boxes are large structures, the tops of which are buried at depths from 8 feet and extend down approximately 20 feet. Below and to the sides of the T/S boxes is a drain rock layer. This network of T/S boxes conveys MGP Waste to the San Francisco Bay.

PAHs in shallow soil. Test results of groundwater samples taken from shallow soils at the Gaslight Building indicated the presence of PAHs at levels that were notable. Further, it was noted that the greatest PAH contamination found in the shallow groundwater at the Gaslight Building was naphthalene which is the most water soluble of the PAH compounds.

More recently, groundwater samples up gradient and down gradient from the MGP Sites were tested for PAH contamination, including in locations in proximity with the Property. The down gradient samples had significantly higher levels of PAHs than did the up gradient samples.

The Property, the Marina Substation, and the Gaslight Building were all within 300 feet of the historic shoreline and are now within 600 to 1000 feet of the present day shoreline.

The investigations done so far lead to this conclusion: groundwater is continuously being contaminated with PAHs from MGP Waste that was deposited in soils at the MGP Sites. Primarily through the actions of groundwater, MGP contamination migrates between sites and moves mostly in the same direction as groundwater, which is northwest toward the San Francisco Bay.

B. MGP Waste Disposed by PG&E on the Property May Present an Imminent and Substantial Endangerment to Health and/or the Environment

The dangerously high levels of lead, and PAHs, in both the soil and groundwater on the Property pose, and may pose, an imminent and substantial endangerment to health and the environment. These wastes have been identified as deeply as the investigation samples were collected. Therefore, no clean horizon has been established at the Property. These wastes have also been identified near or at the surface of the Property, raising significant immediate concerns for human health and the environment, especially given the young age of Ms. Bramer and Mr. Gabany's children, and further raises long-term concerns for human health and the environment.

The DTSC estimates that soil lead concentration of 80 mg/Kg could increase a child's blood lead concentration by up to 1 µg/dL, which is "the estimated incremental increase in children's blood lead that would reduce Intelligence Quotient (IQ) by up to 1 point." DTSC, Human And Ecological Risk Office, Human Health Risk Assessment Note Number 3, January 2016. Mr. Gabany and Ms. Bramer have two small children and purchased their home due to its unusually large backyard. The DTSC notes that "a toddler who plays on bare soil, exhibits hand-to-mouth behavior, and therefore ingests higher- than-average amounts of soil" can result in "high exposure." As discussed, the lead levels from samples from the Property that were tested, were not only many times higher than the levels deemed safe by California regulators, but were all well above the level unsafe for young children.

In addition to lead, the levels of PAHs found during the investigation present significantly increased cancer rates for the entire family, but especially Ms. Bramer and Mr. Gabany's two young children, who are far more likely to incidentally ingest these contaminated soils. Indeed, studies show that incidental ingestion poses a far greater risk as an exposure pathway for young children than for adults and that the increased cancer risk of someone living their entire life near PAH contaminated soil is principally the result of exposure during the person's first 18 years of life, the great majority of which occurs from incidental ingestion.

The Property is also likely to be extensively re-developed, including a significant expansion of the home on the Property that would require replacement of its current slab foundation and significant under slab utility work. Ms. Bramer and Mr. Gabany, in fact, purchased the Property with this in mind, but have been stymied by the MGP Waste; other similar properties in the neighborhood have been, and continue to be, regularly re-developed. The high levels of PAHs and lead in the soil, at the very least, *may* present an imminent and substantial endangerment in the context of such a redevelopment. Due to the highly elevated concentrations of contaminants in the soil, in particular PAHs and lead, absent removal of the contaminated soils under the present house and under its intended extended footprint, unless extraordinary measures were taken, any excavation required for the redevelopment would expose workers to highly toxic soils and would also result in the dispersal of significantly impacted dust throughout the neighborhood, which is home to many young children.

Further, the MGP contamination in the groundwater on and around the Property poses a significant risk to the environment in light of its migration into the San Francisco Bay. Additionally, the contaminated groundwater may pose an imminent and substantial endangerment, as, given the state of water supplies in California, the groundwater beneath the Property may become a necessary source of drinking water and/or for other beneficial uses.

The foregoing list of RCRA violations is not exhaustive. Noticers intend to include in their lawsuit additional violations and/or allegations, legal or factual, revealed in the course of investigation or discovery.

VI. Description of PG&E's CWA Violations

The facts described in the foregoing sections are incorporated by reference here to the same extent as if repeated in full.

Pursuant to sections 505(a) and (b) of the CWA, 33 U.S.C. §§ 1365(a)-(b), Noticers intend to sue PG&E for violating, and continuing to violate, effluent standards and limitations as defined under section 505(f) of the CWA, 33 U.S.C. § 1365(f), by discharging pollutants into the waters of the United States without a permit required by CWA section 301(a), 33 U.S.C. § 1311(a).

A. PG&E Has Violated the CWA by Discharging MGP Waste into the San Francisco Bay without a Permit

The CWA prohibits the discharge of pollutants from a point source to the waters of the United States except when pursuant to, and in compliance with, a permit.[4] *See* 33 U.S.C. § 1311(a); 33 U.S.C. § 1342. The Act defines "pollutant" to include "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological

[4] The State of California was delegated authority by the Environmental Protection Agency to administer the NPDES permit program pursuant to 33 U.S.C. § 1342(b).

materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water." 33 U.S.C. § 1362(6). The CWA defines "discharge of a pollutant" to include "any addition of any pollutant to navigable waters from any point source" and "any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft." 33 U.S.C. § 1362(12). This includes discharges to navigable surface waters via hydrologically connected groundwater. *N. Cal. River Watch v. City of Healdsburg*, 496 F.3d 993, 1000 (9th Cir. 2007).

The toxic chemicals from the MGP Waste located in the soil of the MGP Sites qualify as pollutants, as they contain cariogenic PAHs that are known to be harmful to marine life, including without limitation, fertilized herring eggs and larval herring. Indeed, several of the PAHs known to exist in the MGP Waste located on the MGP Sites are on a list of identified "toxic pollutants" issued by the EPA. These include: acenaphthene; fluoranthene; and naphthalene. *See* 40 C.F.R. § 401.15. The CWA defines "toxic pollutants" as "those pollutants, or combinations of pollutants . . . which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will . . . cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring." 22 U.S.C. § 1362(13). This definition is on all fours in relation to PAHs and their effects on fertilized herring eggs and larval herring known to exist in the San Francisco Bay.

Further, the MGP Sites on which the MGP Waste was disposed by PG&E qualifies as a "point source" of these pollutants. A "point source" is defined by the CWA as "any discernable, confined and discrete conveyance . . . from which pollutants are or may be discharged." 33 U.S.C. § 1362(14). The statutory definition of a point source is meant to be "extremely broad." *Borden Ranch P'ship v. U.S. Army Corps of Eng'rs*, 261 F.3d 810, 815 (9th Cir. 2001); *see also Envtl. Prot. Info. Ctr.*, 469 F. Supp. 2d 803, 820-821 (N.D. Cal. 2007). Factories responsible for discharging pollution have met the definition of a point source. *See League of Wilderness Defenders/Blue Mountains Biodiversity Project v. Forsgren*, 309 F.3d 1181, 1184 (9th Cir. 2002); *Natural Res. Def. Council v. U.S.E.P.A.*, 915 F.2d 1314, 1315 (9th Cir. 1990). Moreover, an entire facility or industrial plant may be a point source. *See*, e.g., *Williams Pipe Line Co. v. Bayer Corp.*, 964 F. Supp. 1300, 1319 (S.D. Iowa 1997). Here, MGP Sites became point sources for continuing illegal discharges of pollutants when PG&E began using them as disposal sites for MGP Waste. The MGP waste emanated into the soil and directly into the Bay via multiple conduits including by way of direct disposal into the San Francisco Bay waters, through groundwater, and through the a network of combined transportation and storage T/S boxes.

The San Francisco Bay—into which PG&E discharges these MGP pollutants—qualifies as navigable waters of the United States and PG&E does not have, and has never had, an applicable NPDES permit.

Due to the foregoing violations, and as a result of the MGP Waste on the Property, the Property has suffered a significant diminution in value.

The foregoing list of CWA violations is not exhaustive. Noticers intend to include in their lawsuit additional violations and/or allegations, legal or factual, revealed in the course of investigation or discovery.

Noticers believe that this Notice of Intent to Sue sufficiently states grounds for filing suit under both the RCRA and the CWA. Each day the above-described violations are not remedied constitutes a separate violation under the applicable regulations and PG&E will remain in violation until the contamination described is not remedied. The CWA and RCRA each authorize penalties up to $37,500/day for each violation of the acts. At the close of the 60-day CWA notice period and the 90-day RCRA notice period, Noticers intend to file a citizen suit against PG&E for the violations discussed above. Noticers intend to seek injunctive relief, penalties, attorneys' fees and costs, including expert witness fees.

During the notice periods, Noticers will be willing to discuss effective remedies for the violations noted in this letter.

Very Best,

STUART G. GROSS

attachments

EXHIBIT A

Exhibit A
(Lead & Arsenic Sampling Results)
(1645 North Point St.)

Field Sample ID	Sample Depth	Arsenic	Lead
0460A026-PB-EAST	0.25	19.9	640
0460A026-PB-WEST	0.25	22.4	490
0460A026-HA7A-SO-0.4	0.4	25.0	231
0460A026-HA04-SO-0.5	0.5	15.7	299
0460A026-HA07-SO-0.5	0.5	24.4	464
0460A026-HA08-SO-0.5	0.5	21.2	488
0460A026-HA09-SO-0.5	0.5	10.8	220
0460A026-HA10-SO-0.5	0.5	16.0	246
0460A026-HA11-SO-0.5	0.5	4.41	267
0460A026-HA14-SO-0.5	0.5	22.8	274
0460A026-HA05-SO-0.6	0.6	27.8	268
0460A026-HA06-SO-0.8	0.8	16.3	257
0460A026-HA06-SO-1.4	1.4	15.5	118
0460A026-HA08-SO-1.5	1.5	11.1	404
S-HA08-1.5	1.5	15	440
0460A026-HA04-SO-3.0	3	10.1	304
0460A026-HA05-SO-3.0	3	4.35	178
0460A026-HA08-SO-3.0	3	10.0	205
0460A026-HA09-SO-3.0	3	4.32	91.9
S-HA09-3.0	3	5.4	110
0460A026-HA10-SO-3.0	3	9.79	732
0460A026-HA11A-SO-3.0	3	3.92	429
0460A026-HA12A-SO-3.0	3	3.44	125
0460A026-HA14-SO-3.0	3	13.6	1280
0460A026-HA04-SO-3.5	3.5	8.51	399
0460A026-HA05-SO-3.5	3.5	4.14	369
0460A026-HA10-SO-3.5	3.5	9.62	605
0460A026-HA11A-SO-3.5	3.5	3.71	791
0460A026-HA12A-SO-3.5	3.5	3.34	107
0460A026-HA14-SO-3.5	3.5	20.1	4460
0460A026-HA04-SO-4.0	4	11.1	281
0460A026-HA10-SO-4.0	4	8.62	446
S-HA10-4.0	4	11	320
0460A026-HA11A-SO-4.0	4	3.32	167
0460A026-HA14-SO-4.0	4	14.5	1820
0460A026-HA04A-SO-5.0	5	9.23	198
0460A026-HA10-SO-5.0	5	3.28	128
S-HA10-5.0	5	<7.5	110
0460A026-HA14-SO-5.0	5	13.9	1650
0460A026-HA04A-SO-10.0	10	6.36	1750
0460A026-HA13A-SO-10.0	10	2.32	93.7

EXHIBIT B

Lead Data Analysis Methodology

1. Create summary table of all total lead soil data from:
    a. H&A GIS (includes total composite waste characterization samples but no leached results)
    b. Spreadsheet of archived ROW samples provided by Gina Plantz
    c. Private property data from Gross & Klein clients
2. Select sample locations on terrestrial FMGPs:
    a. Selection window created from terrestrial FMGP property boundaries offset by 15-feet to account for inaccuracies digitizing/placing historical documentation (see orange boundaries on "Selection_Areas.pdf")
3. Create datasets:
    a. "Intersecting": all locations within selection windows with lead data
    b. "non-Intersection": remaining data not in "Intersecting" dataset
4. Statistics and 2-sided T test within Minitab

Results from Minitab:

Two-Sample T-Test and CI: Intersecting, non-Intersecting

Two-sample T for Intersecting vs non-Intersecting

	N	Mean	StDev	SE Mean
Intersecting	249	385	1209	77
non-Intersecting	97	67	134	14

Difference = mu (Intersecting) - mu (non-Intersecting)
Estimate for difference: 318.068
95% CI for difference: (164.879, 471.258)
T-Test of difference = 0 (vs not =): T-Value = 4.09 P-Value = 0.000 DF = 263

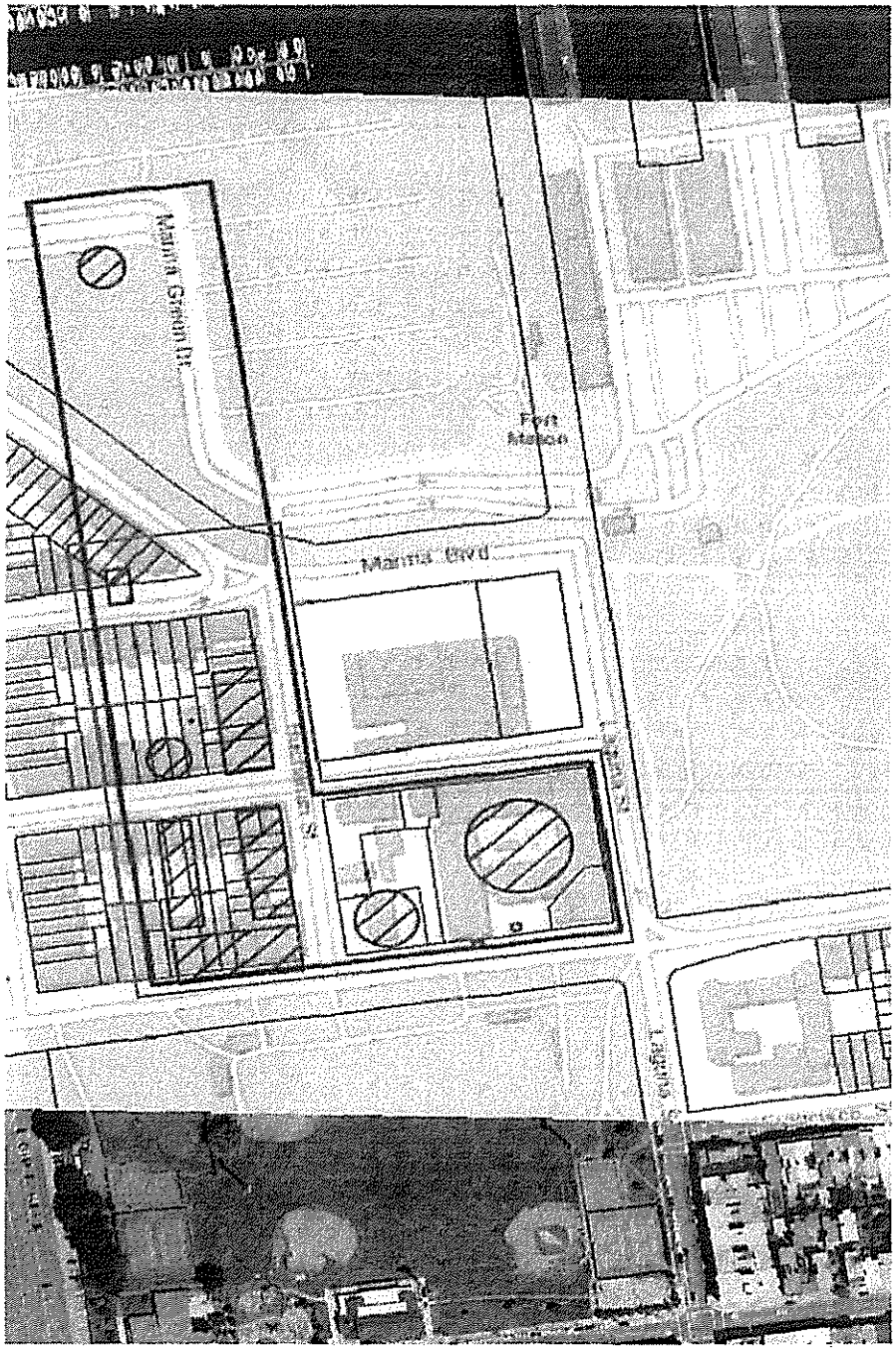
Descriptive Statistics: All_Data, Intersecting, non-Intersecting

Variable	N	N*	Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
All_Data	346	0	295.6	55.8	1037.3	1.0	18.2	96.5	260.0	17000.0
Intersecting	249	0	384.7	76.6	1208.9	1.5	41.5	145.0	315.0	17000.0
non-Intersecting	97	0	66.7	13.6	133.6	1.0	4.4	18.3	83.5	1050.0

One-Sample T: All_Data, Intersecting, non-Intersecting

Variable	N	Mean	StDev	SE Mean	95% CI
All_Data	346	295.556	1037.265	55.764	(185.877, 405.236)
Intersecting	249	384.726	1208.868	76.609	(233.839, 535.613)
non-Intersecting	97	66.6572	133.5601	13.5610	(39.7389, 93.5755)

Lighter outlines represent "intersecting" selection windows:


Marina Green Dr
Fort Mason
Marina Blvd

	"Non-Intersecting" Lead Data ((i.e. samples outside of terrestrial FMGP outlines)						
	Loc_ID	sample_date	Sample_Depth	chemical_name	Result	Unit	Row_ID
	JJA-23	09-Sep-99	31	Lead	4.3	mg/kg	184
	JJA-24	09-Sep-99	1	Lead	20	mg/kg	185
	JJA-24	09-Sep-99	31	Lead	4.3	mg/kg	186
	JJA-25	09-Sep-99	1	Lead	42	mg/kg	187
	JJA-25	09-Sep-99	10	Lead	2.4	mg/kg	188
	JJA-25	09-Sep-99	18	Lead	2.2	mg/kg	189
	JJA-25	09-Sep-99	31	Lead	4.6	mg/kg	190
	JJA-26	09-Sep-99	0.5	Lead	18	mg/kg	191
	JJA-26	09-Sep-99	25	Lead	4.4	mg/kg	192
	JJA-26	09-Sep-99	31	Lead	5.1	mg/kg	193
	JJA-27	09-Sep-99	1	Lead	86	mg/kg	194
	JJA-27	09-Sep-99	31	Lead	3.2	mg/kg	195
	JJA-28	09-Sep-99	1	Lead	83	mg/kg	196
	JJA-28	09-Sep-99	31	Lead	11	mg/kg	197
	JJA-29	09-Sep-99	1	Lead	18	mg/kg	198
	JJA-30	09-Sep-99	27	Lead	4.7	mg/kg	199
	JJA-30	09-Sep-99	37	Lead	4	mg/kg	200
	NB-ROW-HA03	15-May-14	0.5	Lead	45.2	mg/Kg	409
	NB-ROW-HA03	15-May-14	3	Lead	106	mg/Kg	410
	NB-ROW-HA08	16-May-14	0.5	Lead	431	mg/Kg	420
	NB-ROW-HA08	16-May-14	3	Lead	208	mg/Kg	421
	NB-ROW-HA08	16-May-14	4	Lead	88.3	mg/Kg	422
	NB-ROW-HA08	16-May-14	5	Lead	78	mg/Kg	423
	NB-ROW-HA08	16-May-14	8.5	Lead	55.5	mg/Kg	424
	NB-ROW-HA12	13-May-14	0.5	Lead	1050	mg/Kg	427
	NB-ROW-HA12	13-May-14	3	Lead	477	mg/Kg	428
	NB-ROW-HA12	13-May-14	4	Lead	118	mg/Kg	429
	NB-ROW-HA12	13-May-14	5	Lead	176	mg/Kg	430
	NB-ROW-HA12	13-May-14	9	Lead	424	mg/Kg	431
	NB-ROW-HA24	08-May-14	0.5	Lead	198	mg/Kg	441
	NB-ROW-HA24	08-May-14	3	Lead	38.8	mg/Kg	442
	NB-ROW-HA24	08-May-14	3.5	Lead	97.2	mg/Kg	443
	NB-ROW-HA24	08-May-14	4	Lead	37.8	mg/Kg	444
	NB-ROW-HA24	08-May-14	5	Lead	52.7	mg/Kg	445
	NB-ROW-HA24	08-May-14	10	Lead	36.2	mg/Kg	446
	NB-ROW-HA32	06-Apr-15	0.5	Lead	12.4	mg/Kg	456
	NB-ROW-HA32	06-Apr-15	3	Lead	1.62	mg/Kg	457
	NB-ROW-HA32	06-Apr-15	4	Lead	1.41	mg/Kg	458
	NB-ROW-HA32	06-Apr-15	5	Lead	1.22	mg/Kg	459
	NB-ROW-HA32	06-Apr-15	10	Lead	1.16	mg/Kg	460
	NB-ROW-HA34	06-Apr-15	0.5	Lead	164	mg/Kg	461
	NB-ROW-HA34	06-Apr-15	3	Lead	95.4	mg/Kg	462
	NB-ROW-HA34	06-Apr-15	4	Lead	48.6	mg/Kg	463
	NB-ROW-HA34	06-Apr-15	5	Lead	29.2	mg/Kg	464
	NB-ROW-HA34	06-Apr-15	10	Lead	9.76	mg/Kg	465
	NB-ROW-HA40	07-Apr-15	0.5	Lead	16.5	mg/Kg	466
	NB-ROW-HA40	07-Apr-15	3	Lead	35.1	mg/Kg	467

Locations				
Loc_ID	Easting	Northing		
0445A011-HA02	6002795.25	2121063.73		
0445A011-HA06	6002809.05	2121107.69		
0445A011-HA07	6002786.12	2121115.85		
0445A025-HA03	6002774.04	2121164.90		
0445A025-HA05	6002776.41	2121144.60		
0445A025-IDW-01	6002775.71	2121197.24		
0445A025-IDW-02	6002784.27	2121167.36		
0445A025-IDW-03	6002776.68	2121145.84		
0445A025-IDW-04	6002792.46	2121152.06		
0445A025-IDW-05	6002787.90	2121134.25		
0445A025-IDW-06	6002797.79	2121135.63		
0445A026-IDW-01	6002813.21	2121168.67		
0445A026-IDW-02	6002813.21	2121168.67		
0445A027-HA03	6002831.17	2121171.74		
0445A027-HA04	6002838.59	2121161.69		
0445A027-HA06	6002830.06	2121161.52		
0445A027-IDW(HA18)-A	6002846.05	2121218.71		
0445A027-IDW(HA18)-B	6002843.22	2121220.83		
0445A027-IDW(HA18)-C	6002845.35	2121223.66		
0445A027-IDW-01	6002840.47	2121190.41		
0445A027-IDW-02	6002842.99	2121172.58		
0445A028-IDW	6002865.79	2121180.41		
0445A030-IDW	6002894.71	2121172.74		
0445A050-IDW	6002922.68	2121170.38		
0445A050-IDW-020613	6002922.68	2121170.38		
0459007-HA14	6003216.23	2120799.38		
0459007-HA17	6003219.63	2120768.11		
0459007-HA18	6003246.42	2120770.60		
0459007-HA20	6003225.20	2120741.25		
0459007-HA21	6003250.94	2120743.52		
0460A026-HA02A	6002887.32	2120859.62		
0460A026-HA03	6002882.85	2120847.98		
0460A026-HA04	6002871.58	2120837.53		
0460A026-HA04A	6002871.44	2120838.52		
0460A026-HA05	6002894.53	2120848.90		
0460A026-HA06	6002883.99	2120826.64		
0460A026-HA07	6002899.76	2120813.39		
0460A026-HA08	6002888.90	2120809.45		
0460A026-HA09	6002901.43	2120799.90		
0460A026-HA10	6002876.84	2120800.31		
0460A026-HA11	6002874.99	2120914.10		
0460A026-HA11A	6002874.76	2120916.94		
0460A026-HA12A	6002876.55	2120894.85		
0460A026-HA13A	6002885.06	2120867.43		
0460A026-HA14	6002874.41	2120817.12		
0460A026-HA7A	*No coordinates but included as "intersecting" as entire APN on NB footprint			
0460A026-PB-EAST	*No coordinates but included as "intersecting" as entire APN on NB footprint			

Locations				
Loc_ID	Easting	Northing		
0460A026-PB-WEST	*No coordinates but included as "intersecting" as entire APN on NB footprint			
0460A029-IDW-SO-1	6002967.70	2120846.06		
0460A029-IDW-SO-2	6002967.70	2120846.06		
0460A029-IDW-SO-3	6002967.70	2120846.06		
0463A006A-HA06	6001571.71	2120467.45		
0463A006-IDW	6001591.37	2120471.21		
0463A011-IDW-01	6001473.62	2120398.83		
0463A011-IDW-02	6001473.62	2120398.83		
0463A011-IDW-03	6001473.62	2120398.83		
0463A011-IDW-04	6001473.62	2120398.83		
0463A012A-IDW	6001434.18	2120376.44		
0466A012-HA10	6001739.80	2120180.48		
0466A012-IDW01	6001453.41	2120388.10		
0466A012-IDW02	6001453.41	2120388.10		
0466A012-IDW03	6001453.41	2120388.10		
0466A012-IDW-030813	6001453.41	2120388.10		
0466A012-IDW04	6001453.41	2120388.10		
0466A012-IDW05	6001453.41	2120388.10		
0466A012-IDW06	6001453.41	2120388.10		
0466A042-HA05	6001705.54	2120230.96		
0466A042-HA05-IDW	6001705.54	2120230.96		
0466A042-HA06	6001718.41	2120234.85		
0466A042-HA06-IDW	6001718.41	2120234.85		
0466A042-HA07	6001702.44	2120216.37		
0466A042-HA07-IDW	6001702.44	2120216.37		
0466A042-IDW-01	6001703.37	2120232.91		
0466A042-IDW-02	6001703.37	2120232.91		
0466A042-IDW-03	6001703.37	2120232.91		
0466A042-IDW-04	6001703.37	2120232.91		
0467A034-IDW-01	6002048.68	2120159.37		
0467A034-IDW-02	6002035.78	2120171.93		
0467A034-IDW-03	6002046.81	2120165.46		
0467A034-IDW-04	6002049.41	2120169.88		
0467A034-IDW-06	6002037.30	2120161.91		
FF-ROW-HA29	6001746.67	2120415.55		
JJA-12	6002424.50	2122221.21		
JJA-13	6002461.35	2122037.45		
JJA-14	6003211.65	2121543.64		
JJA-15	6003328.76	2121564.86		
JJA-16	6002979.96	2121546.31		
JJA-17	6003108.04	2121531.57		
JJA-18	6002708.50	2122009.62		
JJA-19	6002757.64	2122022.89		
JJA-20	6002850.86	2122038.67		
JJA-21	6002884.47	2122011.91		
JJA-22	6002911.30	2121940.99		
JJA-23	6002824.84	2121937.42		

Locations				
Loc_ID	Easting	Northing		
JJA-24	6002762.21	2121929.32		
JJA-25	6002932.77	2121815.05		
JJA-26	6002949.53	2121638.29		
JJA-27	6002641.34	2121911.02		
JJA-28	6002679.11	2121917.91		
JJA-29	6002873.17	2122017.39		
JJA-30	6002866.47	2122022.13		
JJA-31	6002880.72	2122043.12		
JJA-32	6002886.19	2122005.71		
JJA-33	6002905.80	2122012.45		
JJA-34	6002914.73	2122004.41		
JJA-35	6002896.27	2121990.31		
JJA-37	6002872.03	2121988.33		
NB-ROW-HA03	6002877.41	2121438.83		
NB-ROW-HA04	6002811.44	2121333.44		
NB-ROW-HA05	6002762.50	2121324.48		
NB-ROW-HA08	6002688.40	2121265.45		
NB-ROW-HA09	6002976.51	2121310.23		
NB-ROW-HA12	6002636.24	2120980.51		
NB-ROW-HA13	6002875.33	2120997.65		
NB-ROW-HA17	6002918.50	2120949.30		
NB-ROW-HA24	6002675.21	2120674.32		
NB-ROW-HA26	6003047.96	2120673.98		
NB-ROW-HA27	6003112.25	2120707.57		
NB-ROW-HA32	6003540.93	2120653.72		
NB-ROW-HA34	6003237.38	2121058.58		
NB-ROW-HA40	6002681.22	2121607.74		
NB-ROW-HA41	6002809.58	2121316.89		